

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1-3 (Canceled)

4. (Currently Amended) A structure within a cylindrical housing for mounting an electromagnetic induction actuator comprising,

a magnetic circuit comprising a pole piece and a magnet connected as one piece, and a yoke that holds the pole piece and magnet together with a magnetic gap formed between the yoke and the pole piece, the magnetic circuit supported within the housing by leaf springs;

a diaphragm, to the inward side of which is attached a voice coil, the voice coil projecting into the magnetic gap between the pole piece and the yoke, and the diaphragm extending inside the housing through a first open side;

a terminal fitting that is attached to a terminal block that projects outward from the side wall of the housing and lead wires that electrically connect the voice coil and the terminal fitting;

wherein the terminal block is facing a second open side of the housing in which the diaphragm is fitted and fixed, and a pad of elastic material is sandwiched between the second open side of the housing and the surface of a circuit board on the side of the housing where a leaf spring projects, so that pressing the terminal fitting against a conductive pattern of the circuit board forms an electrical connection to the circuit board; and

~~A structure for mounting an electromagnetic induction actuator as described in claim 2 or 3 above, in which there is a bushing of elastic material with circular extension flanges that covers from the outside of the side wall of the housing, except for the terminal fittings on the terminal block for the metal terminals, and that covers the first open sides of the housing, such that the extension flange that covers one the first open side of the housing becomes a pad that is sandwiched between the housing and the surface of the circuit board, and the extension flange that covers the other second opens side of the housing is positioned inside the outer casing as a seal that surrounds the sound holes.~~

5. (Canceled)

6. (Currently Amended) A structure within a cylindrical housing for mounting an electromagnetic induction actuator comprising,

a magnetic circuit comprising a pole piece and a magnet connected as one piece, and a yoke that holds the pole piece and magnet together with a magnetic gap formed between the yoke and the pole piece, the magnetic circuit supported within the housing by leaf springs;

a diaphragm, to the inward side of which is attached a voice coil, the voice coil projecting into the magnetic gap between the pole piece and the yoke and the diaphragm extending inside the housing through a first open side;

a terminal fitting that is attached to a terminal block that projects outward from the side wall of the housing and lead wires that electrically connect the voice coil and the terminal fitting;

wherein the terminal block is facing a second open side of the housing in which the diaphragm is fitted and fixed, and a pad of elastic material is sandwiched between the second open side of the housing and the surface of a circuit board on the side of the housing where a leaf spring projects, so that pressing the terminal fitting against a conductive pattern of the circuit board forms an electrical connection to the circuit board; and

~~A structure for mounting an electromagnetic induction actuator as described in claim 2 or 3 above, in which there is a~~ wherein the housing with plural has multiple projections of elastic material at intervals along the outer periphery of the side wall and ~~there is an outer casing or the circuit board or an outer casing has~~ with a stop rim having concavities into which the projections of the housing fit, such that fitting the projections of the housing into the concavities attaches the electromagnetic induction actuator to the stop rim of the outer casing or the circuit board.

7-12. (Canceled)

13. (Currently Amended) An electromagnetic induction actuator that has, within a cylindrical housing, a magnetic circuit comprising a pole piece and a magnet connected as one piece, and a yoke that holds the pole piece together with a magnetic gap formed between the yoke and the pole piece, the magnetic circuit being supported within the housing by leaf springs;

a diaphragm, to the inward side of which is attached a voice coil, the voice coil projecting into the magnetic gap between the pole piece and the yoke, and the diaphragm extending inside the housing through an open side;

a terminal fitting that is attached to a terminal block that projects outward from the side wall of the housing; and lead wires that electrically connect the voice coil and the terminal fitting;

in which contact points that connect electrically to a conductive pattern of a circuit board are on the side where the diaphragm is mounted, and flat plates that are electrically connected to the voice coil lead wires are attached to leaf spring terminal fittings on the side opposite the side where the diaphragm is mounted, the voice coil lead wires being divided by positive and negative polarity and electrically connecting the side where the diaphragm is mounted to the flat plates of the terminal fittings on the opposite side, with the side where the diaphragm is mounted facing the surface of the circuit board, or mounted upside-down in an equipment case;

wherein the terminal block comprises a sink in the center of both a positive half and a negative half of the terminal block, the sink having a top plate and a bottom plate, of which the top plate extends further out than the bottom plate, and wherein the sink further comprises two side plates;

and in which there are the terminal fittings of the leaf spring material, each terminal fitting having a fitted bend in the center and a bend at the top section that is parallel to the fitted bend that forms a flat plate for attachment of the lead wire, and at the bottom the leaf spring that slants down and curves around to form the contact point for connection with the conductive pattern of the circuit board;

such that when the fitted bend is inserted into the sink and the top plate of the terminal block is clamped between the top of the fitted bend and the flat plate for attachment of the lead wire, the contact point for connection to the conductive pattern of the circuit board projects downward and is supported by the two side plates, with the terminal fitting firmly

attached to the terminal block; and

~~An electromagnetic induction actuator as described in claim 12 above, in which wherein the metal terminals terminal fittings comprise projecting have a number of teeth projecting that project from an outer rim and spring arms that extend from a clamping spring portion, as well as receiving piers on the inner surfaces of the side plates of the terminal block at a distance from the top plate that corresponds outward from both sides of top of the fitting bend and spring arms that extend from the top of the fitting bend;~~

~~and the terminal blocks has spaces that correspond to the thickness of the spring arms and receiving plates that face the top plates on the inner face of side plates; such that by fitting and the spring arms fit between the top plate of the terminal block and the receiving plate of the piers on each side plate and compressing the projecting teeth against the inner surfaces of the two side plates, the terminal fitting is mounted in the terminal block side plates, and the teeth are compressed by the inner face of side plates, thus the terminal fittings firmly attached to the terminal block.~~

14. (Currently Amended) An electromagnetic induction actuator that has, within a cylindrical housing, a magnetic circuit comprising a pole piece and a magnet connected as one piece, and a yoke that holds the pole piece together with a magnetic gap formed between the yoke and the pole piece, the magnetic circuit being supported within the housing by leaf springs;

a diaphragm, to the inward side of which is attached a voice coil, the voice coil projecting into the magnetic gap between the pole piece and the yoke, and the diaphragm extending inside the housing through an open side;

a terminal fitting that is attached to a terminal block that projects outward from the side wall of the housing; and lead wires that electrically connect the voice coil and the terminal fitting;

in which contact points that connect electrically to a conductive pattern of a circuit board are on the side where the diaphragm is mounted, and flat plates that are electrically connected to the voice coil lead wires are attached to leaf spring terminal fittings on the side opposite the side where the diaphragm is mounted, the voice coil lead wires being divided by positive and negative polarity and electrically connecting the side where the

diaphragm is mounted to the flat plates of the terminal fittings on the opposite side, with the side where the diaphragm is mounted facing the surface of the circuit board, or mounted upside-down in an equipment case;

wherein the terminal block comprises a sink in the center of both a positive half and a negative half of the terminal block, the sink having a top plate and a bottom plate, of which the top plate extends further out than the bottom plate, and wherein the sink further comprises two side plates;

and in which there are the terminal fittings of the leaf spring material, each terminal fitting having a fitted bend in the center and a bend at the top section that is parallel to the fitted bend that forms a flat plate for attachment of the lead wire, and at the bottom the leaf spring that slants down and curves around to form the contact point for connection with the conductive pattern of the circuit board;

such that when the fitted bend is inserted into the sink and the top plate of the terminal block is clamped between the top of the fitted bend and the flat plate for attachment of the lead wire, the contact point for connection to the conductive pattern of the circuit board projects downward and is supported by the two side plates, with the terminal fitting firmly attached to the terminal block; and

wherein the terminal fittings comprise projecting teeth that project from an outer rim and spring arms that extend from a clamping spring portion, as well as receiving piers on the inner surfaces of the side plates of the terminal block at a distance from the top plate that corresponds to the thickness of the spring arm; such that by fitting the spring arms between the top plate and the receiving piers on each side plate and compressing the projecting teeth against the inner surfaces of the two side plates, the terminal fitting is mounted in the terminal block;

~~An electromagnetic induction actuator as described in claim 12 above, in which the metal terminals have wing-shaped leaf spring that curve outward at the tip of the leaf springs where wing-shaped leaf springs are bent back from the contact points and that extend toward the sides of the terminal block,~~

~~and the terminal block has receiving plates on the inner walls of its side plates that stop and support the wing-shaped leaf springs when the leaf spring is compressed, such that the metal terminals are mounted in the terminal block by a fitted structure that allows spring movement of the contact points~~

wherein the terminal fitting further comprises the tip of the leaf spring that curves upward beyond the contact point and folds back inward and has the leaf springs that extend toward the two sides of the terminal block, and in which there are receiving piers on the inner surfaces of the two side plates that stop and support the leaf springs extending from the tip when the terminal fitting is deformed under pressure, such that the terminal fitting is mounted in the terminal block by a fitted structure that allows spring movement of the contact point.

15-16. (Canceled)

17. (Previously Presented) A structure for mounting an electromagnetic induction actuator as described in claim 4 above, in which there is a circular projecting band of elastic material that faces the surface of the circuit board, the circular band being sandwiched between one open side of the housing and the surface of the circuit board as a pad that is deformed by compression.

18. (Previously Presented) A structure for mounting an electromagnetic induction actuator as described in claim 6 above, in which there is a circular projecting band of elastic material that faces the surface of the circuit board, the circular band being sandwiched between one open side of the housing and the surface of the circuit board as a pad that is deformed by compression.

19. (Previously Presented) A structure for mounting an electromagnetic induction actuator as described in claim 4 above, in which the electromagnetic induction actuator is suited to mounting within a portable telephone.

20. (Previously Presented) A structure for mounting an electromagnetic induction actuator as described in claim 6 above, in which the electromagnetic induction actuator is suited to mounting within a portable telephone.

21. (Canceled)